

MONOMER HAVING ELECTRON-ATTRACTIVE GROUP AND ELECTRON-DONATING GROUP, COPOLYMER USING IT, AND PROTON- CONDUCTIVE FILM

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Inventor: GOTO KOHEI; YAMAKAWA YOSHITAKA; HIGAMI MAKOTO; TAKAHASHI MASAYUKI
Applicant: JSR CORP
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Abstract of JP2002293889

PROBLEM TO BE SOLVED: To provide a monomer, having an electron-attractive group and an electron-donating group, that can provide a proton-conductive film, capable of easily controlling to upper limit of amount of introduction of a sulfonic acid harmful in mechanical properties, keeping high proton conductivity of sulfonated polymer obtained in the wide range of temperature, excellent in mechanical strength, suppressed in swelling in warm water and aqueous methanol, and excellent in durability, and to provide a copolymer obtained from this polymer. **SOLUTION:** The monomer having the electron-attractive group and the electron-donating group, shown by general formula (1), is copolymerized to provide the copolymer. This copolymer is sulfonated to give the proton-conductive film. In formula, Y denotes a iodine atom, a chlorine atom or a bromine atom, X denotes the electron-attractive group, B denotes the electron denoting group, Z denotes an aryl group having a specific structure, or a monovalent condensed-ring hydrocarbon group such as a naphthyl group and the like.

